

## **ABSTRACT**

Background: The most commonly diagnosed cancers worldwide are those of the lung, breast and colorectum. Breast cancer is the most common cancer in women worldwide. In 2012, 1.7 million women were diagnosed with breast cancer and there were 6.3 million women alive who had been diagnosed with breast cancer in the previous five years. Since 2008, breast cancer incidence has increased by more than 20%, while mortality has increased by 14%. A cross-sectional study was carried out at the Haemato-oncology and Cancer Treatment Centre of Kenyatta National Hospital to assess the quality of life (QOL) of breast cancer patients. Patients receiving cancer treatment were consecutively recruited at a rate of 20 patients per week until the required sample size of 140 was achieved. Each patient was interviewed using a validated tool for assessing quality of life in cancer patients – European Organization for Research and Treatment of Cancer, Quality of Life Questionnaire (EORTC QLQ-C30). Principal component analysis (PCA) was used to identify a single variable that indicates QOL, before applying logistic regression to assess the predictors of QOL. Nonlinear PCA analysis resulted in total percentage variance accounted for (PVAF) of 46.8%. The median QOL score was 2.45. The mean age of the respondents was  $49.4 \pm 10.2$  years. 61.8% of the respondents were in their late stages of the disease. Thirty eight percent respondents were on chemotherapy, 27.5% on radiotherapy, 20.4% on tamoxifen and 14.1% were on surgery. The study found out that surgery ( $p=0.010$ ) and tamoxifen treatments ( $p=0.001$ ) are statistically significant predictors. Ages, marital status, education, parity, stage of the disease and radiotherapy treatment are not significant predictors. The study concludes that breast cancer patients have poor quality of life, and those in the late stage of the disease are more likely to have poor quality of life compared to those in the early stage. Patients receiving surgery and taxomifen reported lower QOL score. This study will therefore be used in management of QOL of breast cancer patients by directing innovative interventions that improve quality of life of patients. Key words: Breast cancer, PCA, QLO-C30, EORTC, PVAF